```
N = 182 = 2*7*13

By the Ibukiyama-Kitayama dimension formula,
 dim(S_4(K(182))) = 74

By the Skoruppa-Zagier dimension formula and Jacobi restriction,
 the lift dimension of S_4(K(182))^+ is 29
 the nonlift dimension of S_4(K(182))^+ is heuristically 32
 dim(S_4(K(182))^+) thus is heuristically 61
 dim(S_4(K(182))^-) is heuristically 13

The heuristic dimensions are correct by the spanning results to follow

dim(J_{2,182}^{cusp}) = 2 (Skoruppa-Zagier), so need to span to within 1 dimension

q = 5 for TraceDown
After TD(Grit(J_{4,910}^{cusp})) and (Grit(J_{2,182}^{cusp}))^2,
 spanned rank in S_4(K(182))^+ is 61
 spanned rank in S_4(K(182))^- is 0

Hecke operators applied: {{{2, 2}}, {{2, 2}, {2, 1}}, {{2, 2}, {3, 1}}}
After Hecke spreading,
 spanned rank in S_4(K(182))^- is 7

After Borcherds products,
 spanned rank in S_4(K(182))^- is 13

Final spanned rank in S_4(K(182))^+ is 61
Final spanned rank in S_4(K(182))^- is 13

--------------------------------------------------------------------------------

S_2(K(182)) is determined by Jacobi restriction and the H4Ndd(2,+) test
 (H_4(182,2,2)^+ = 0)

So S_2(K(182)) = Grit(J_{2,182}^{cusp}) (dimension 2)
```